MOBILE IP INTRA-AGENT MOBILITY

ABSTRACT OF THE DISCLOSURE

Methods and apparatus for enabling intra-agent mobility by a mobile node are

5   disclosed, thereby permitting a mobile node to register with a Home Agent via a Foreign

Agent where the Home Agent and the Foreign Agent are provided in the same router. A

method of registering a mobile node visiting a Foreign Agent with a Home Agent includes

receiving a registration request packet specifying a Home Address and a care-of address.

It is then determined whether the Home Address specified in the registration request

10   packet is equivalent to a Home Agent address associated with the router. In addition, it

may be determined whether the care-of address specified in the registration request packet

is equivalent to a Foreign Agent address advertised by the router. Alternatively, it may be

determined whether the D bit specified in the registration request packet is set and the

care-of address specified in the registration request packet is a collocated care-of address.

15   The mobile node may then be registered with the Home Agent through the use of a

physical interface on the router rather than creating or specifying a tunnel interface to

reach the mobile node or the Home Agent.